

Biomek Set-up

Figure 1

### Genewriter - Oligonucleotide Pooling Plan

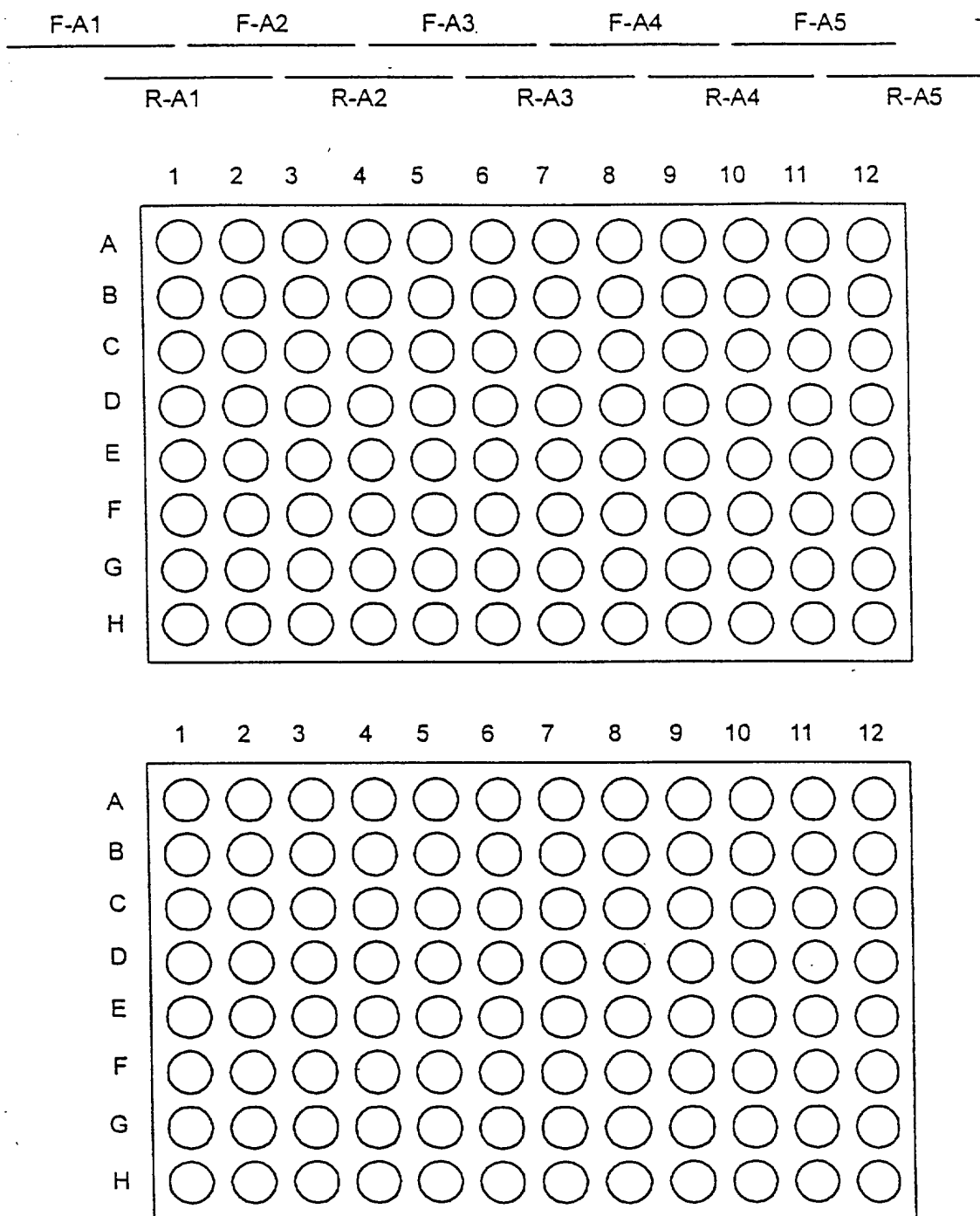


Figure 2

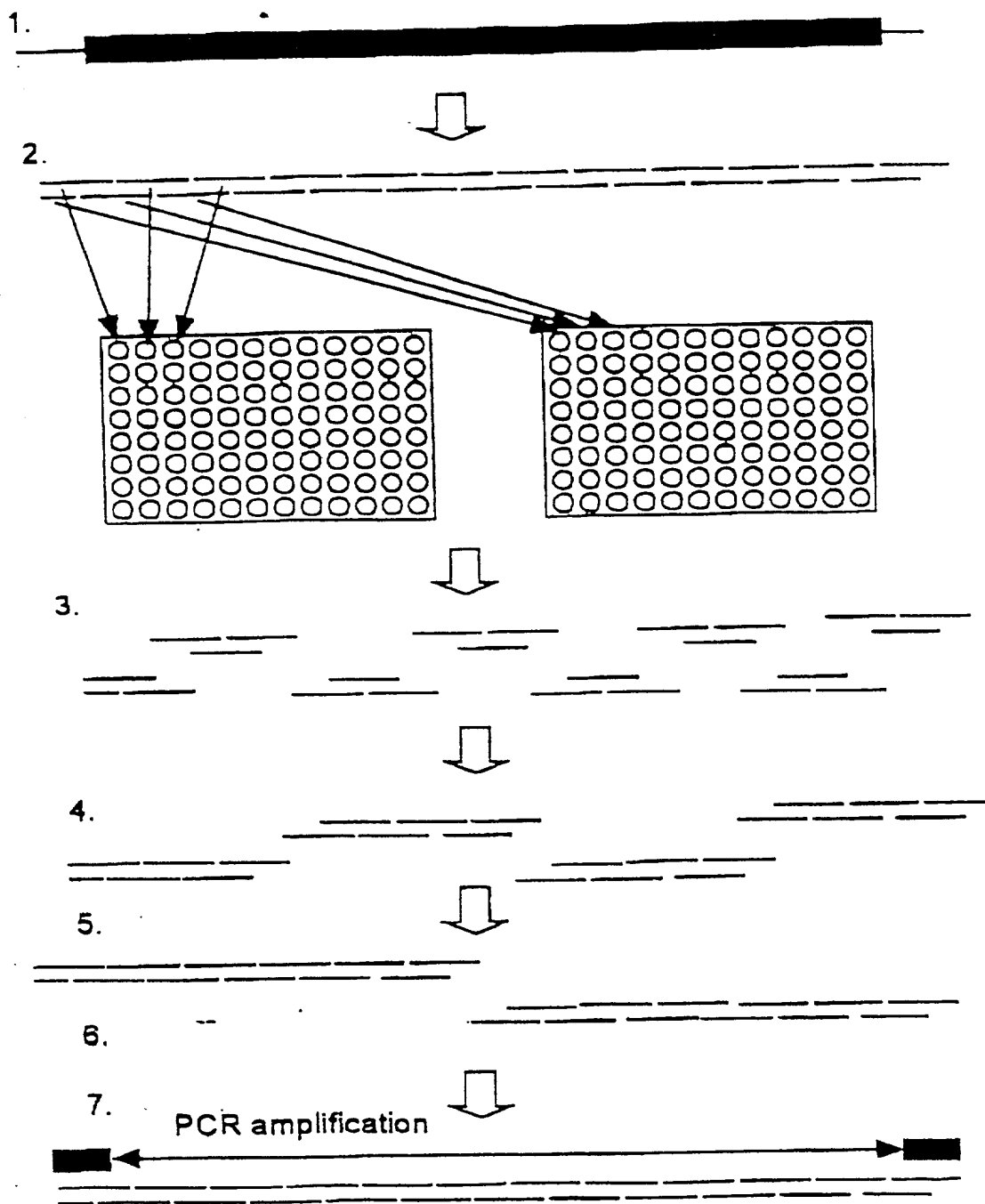


Figure 3

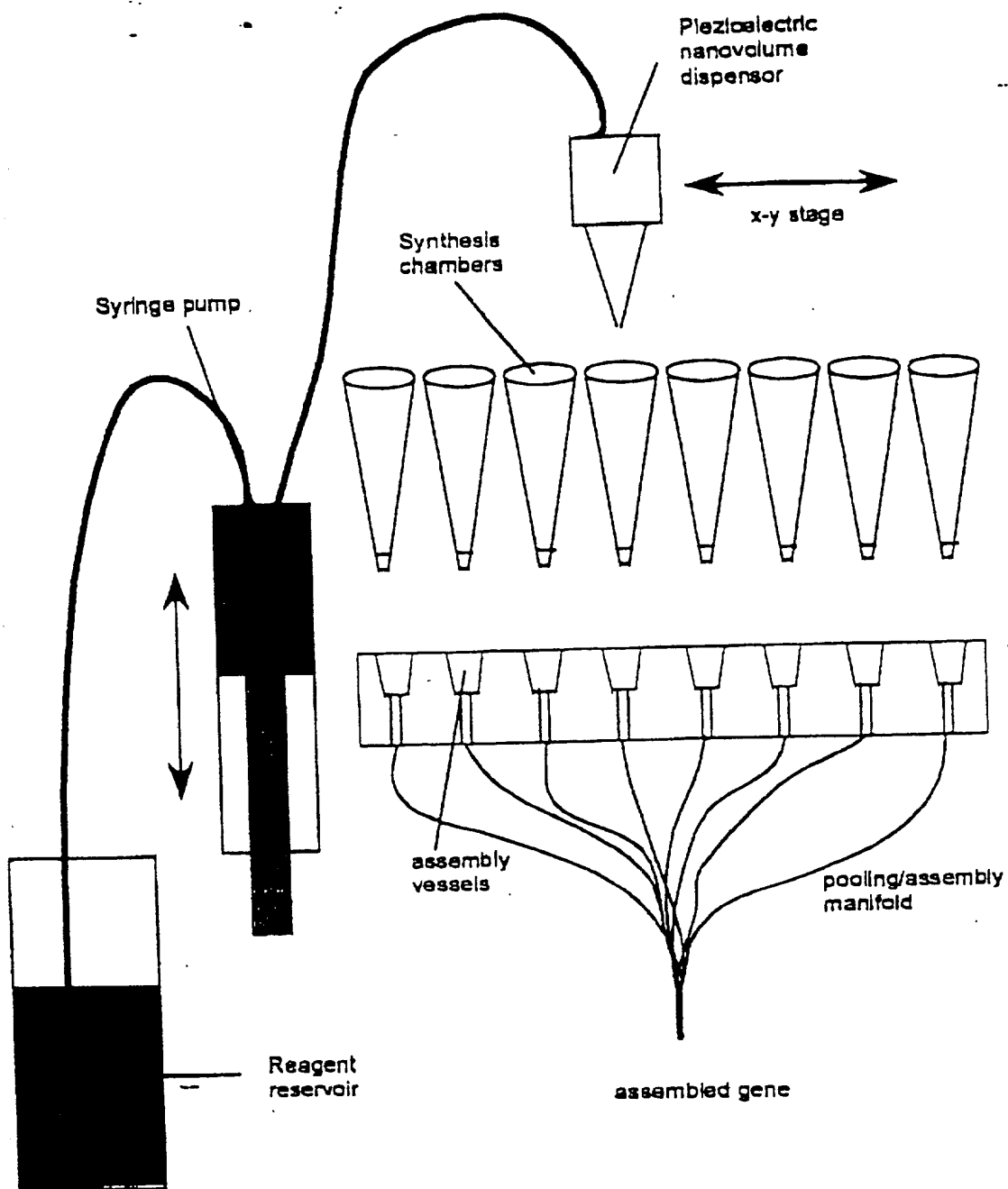


Figure 4

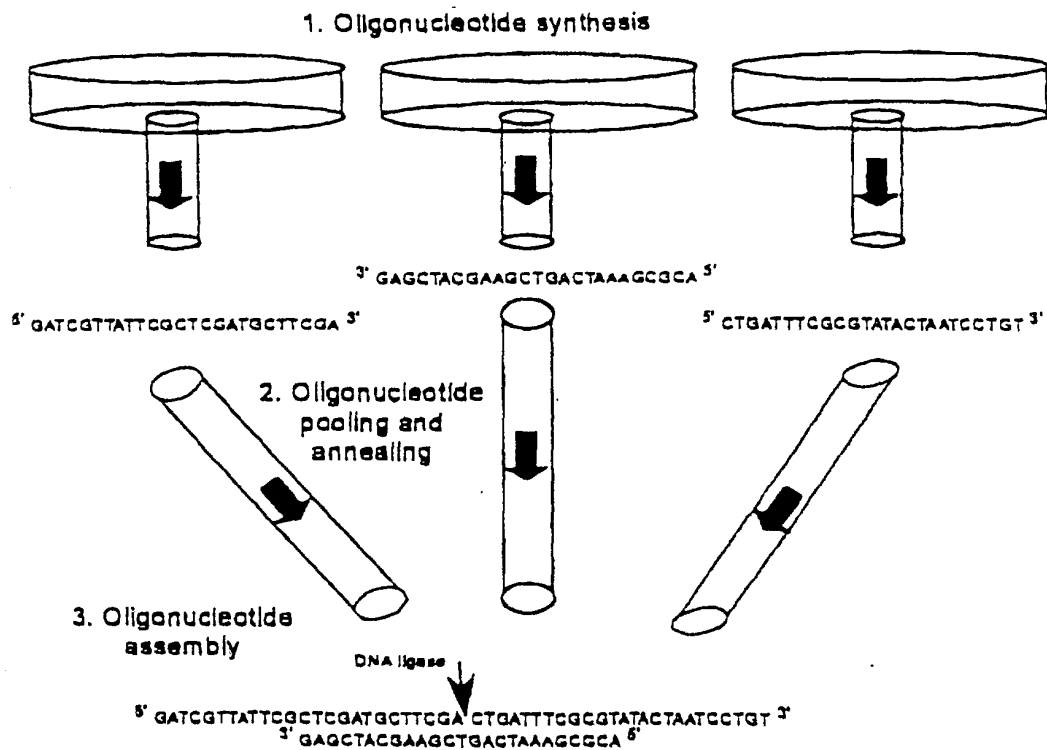


Figure 5

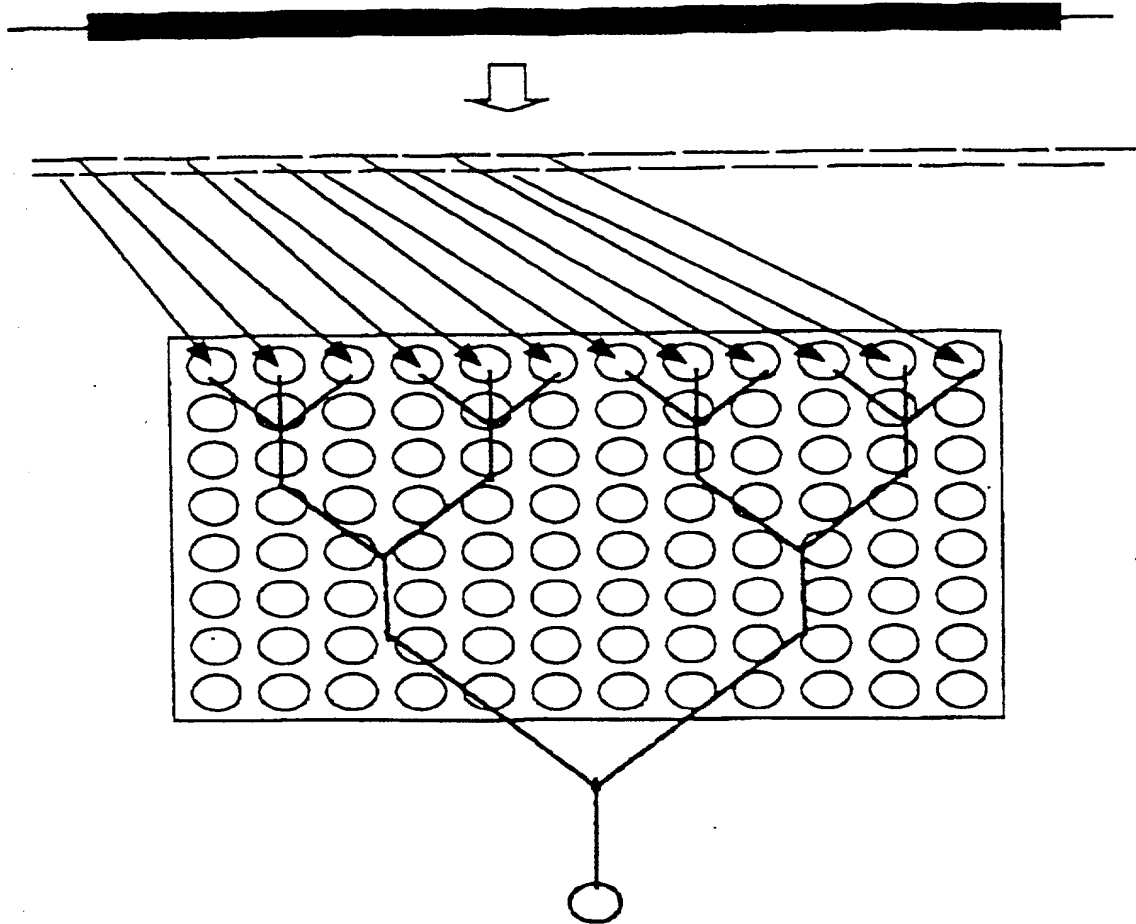


Figure 6

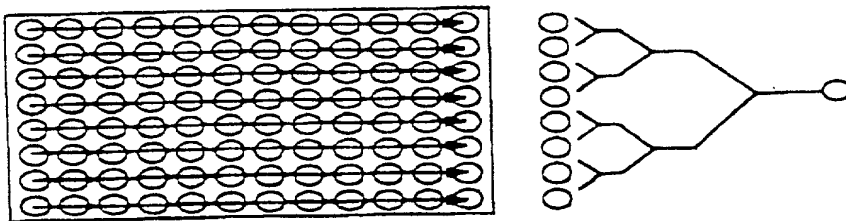


Figure 7

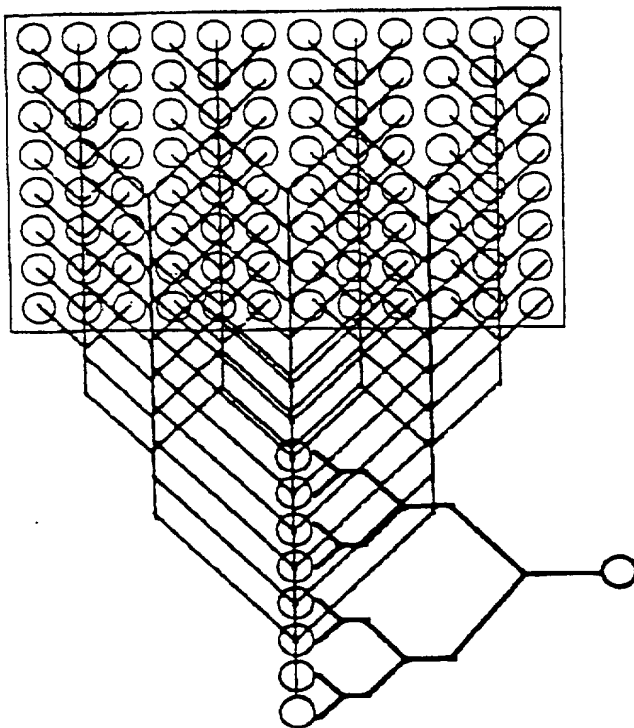


Figure 8

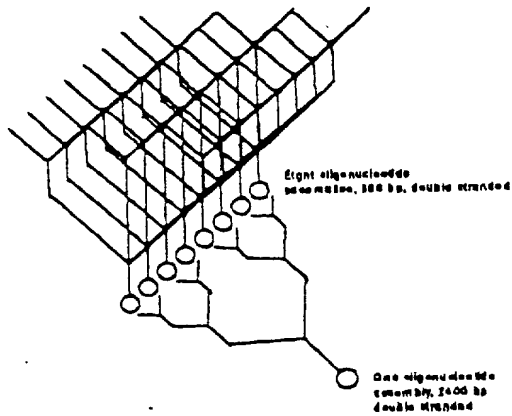
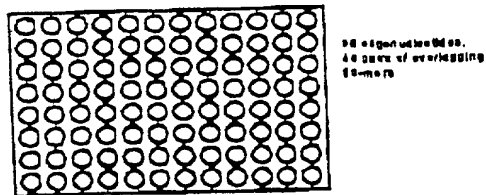


Figure 9



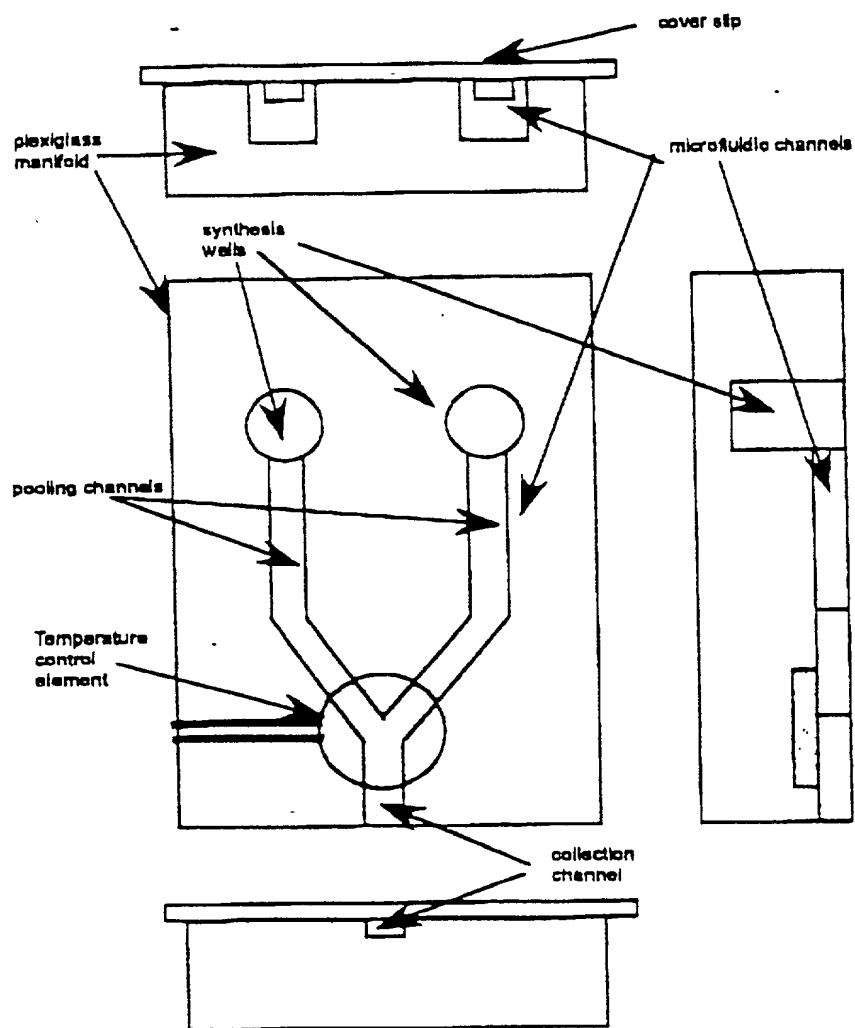


Figure 10

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Attorney Docket No. P-EA 5160

Genewriter Platform Design  
8 x 96 well plates addressed with 16 piezoelectric  
nanovolume dispenser heads; One wash/dry station  
and one additional plate station. 8 plate evacuated by  
a single vacuum station.

Capacity of 8 x 96 = 768 oligos/run

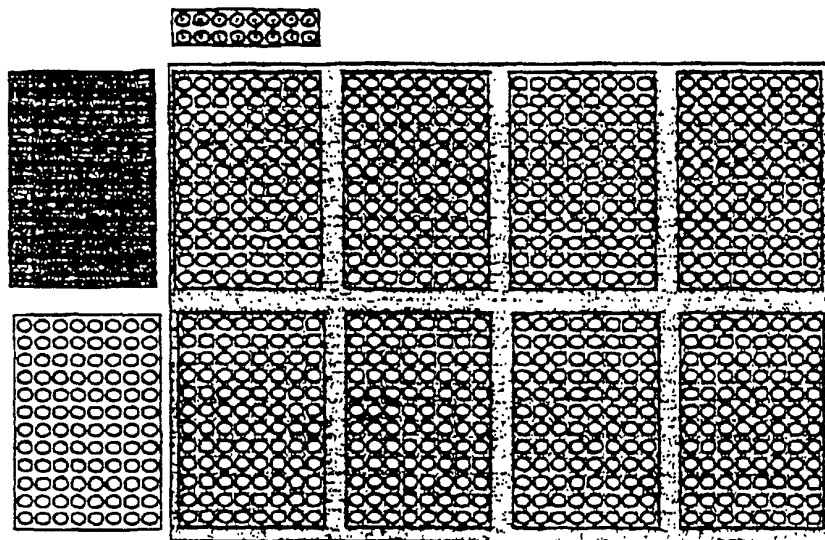


Figure 11

Genewriter Platform Design - High Capacity Mode  
8 x 1536 well microassay plates addressed with 18 piezoelectric  
nanovolume dispense heads; One wash/dry station  
and one additional plate station. 18 plates evacuated by  
a single vacuum station.

Capacity of 8 x 1536 = 12,288 oligos/run

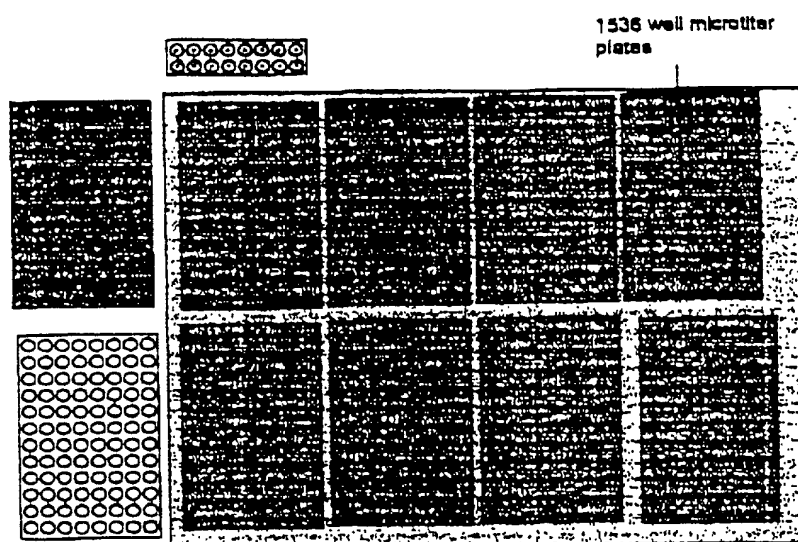


Figure 12

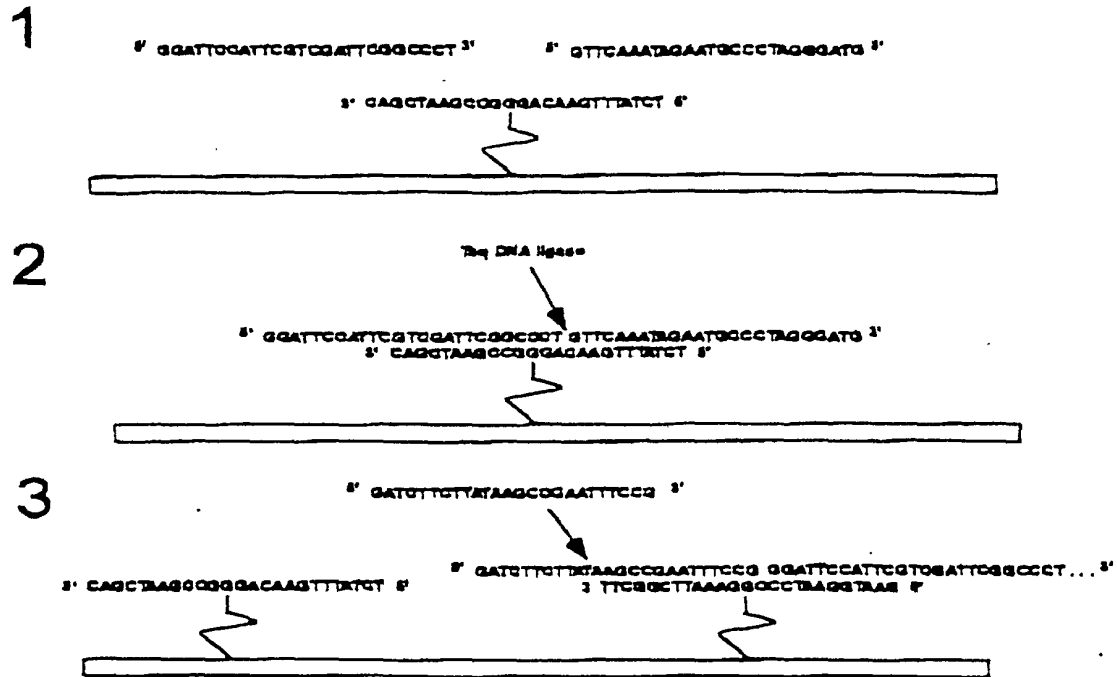


Figure 13

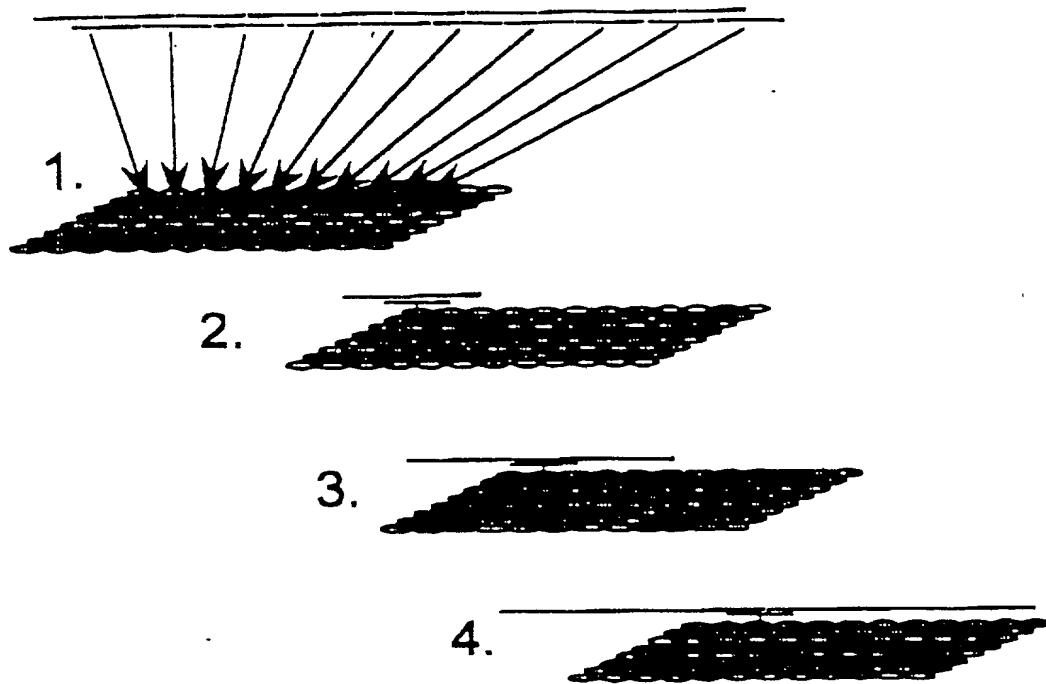


Figure 14

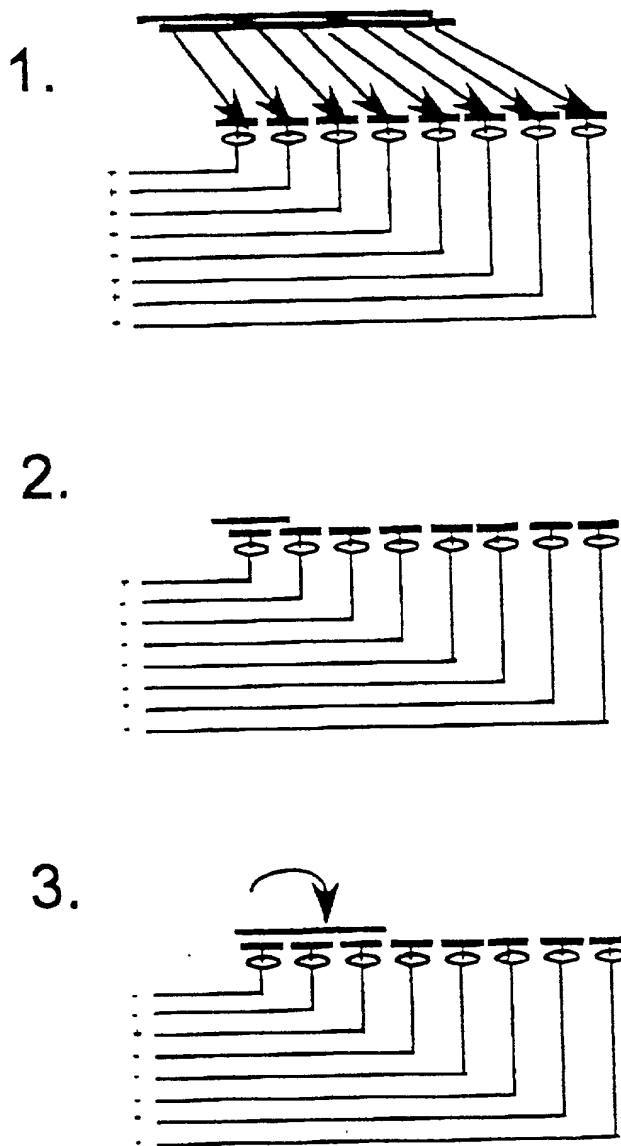


Figure 15

Bidirectional primer extension strategy for gene assembly

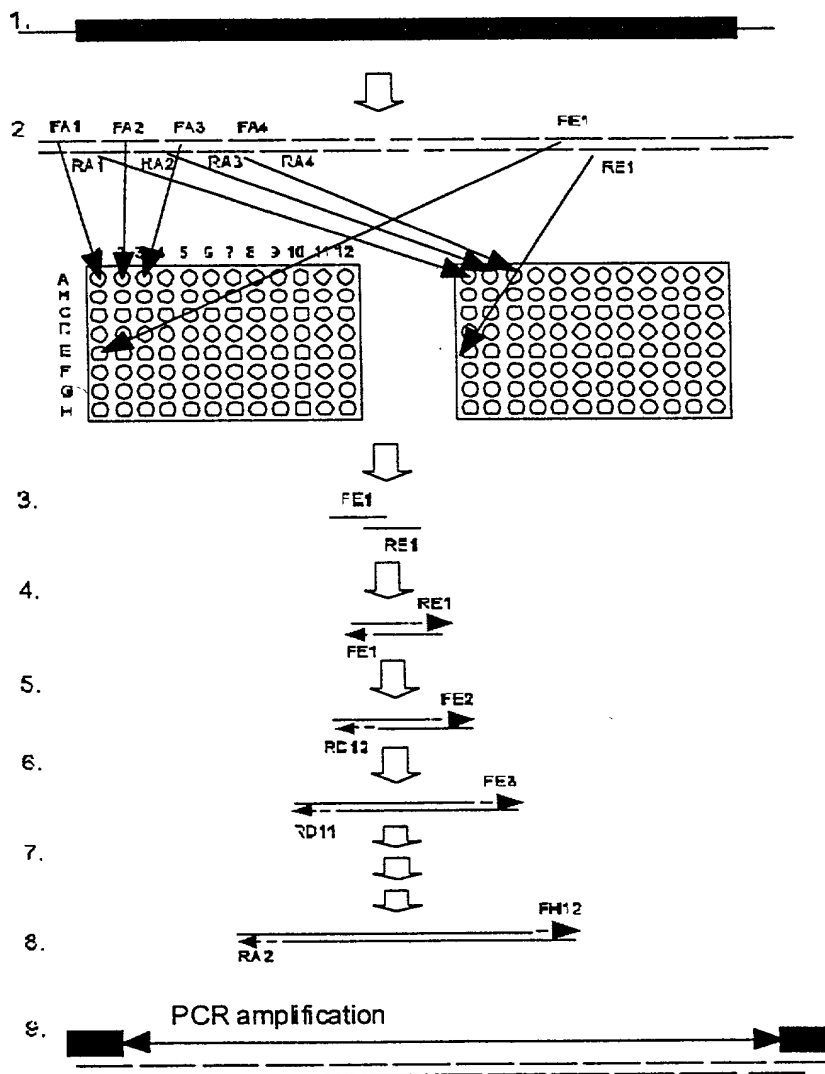


Figure 16

### System Diagram for Genewriter

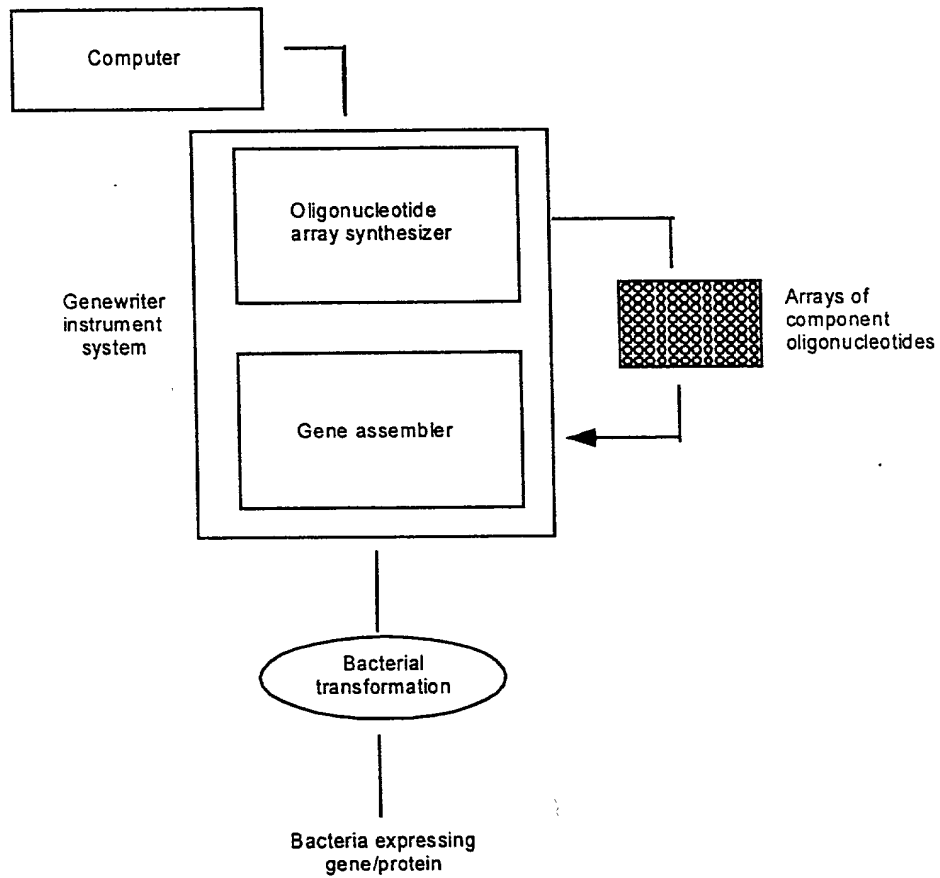
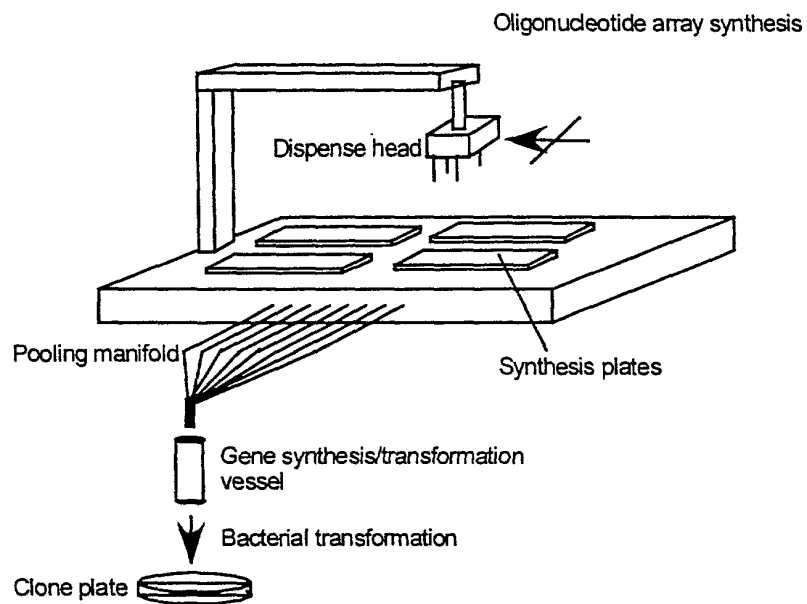


Figure 17



**Perspective view of Genewriter Instrument**

*Genewriter diagram*



**Figure 18**